

First Annual  
Catalog

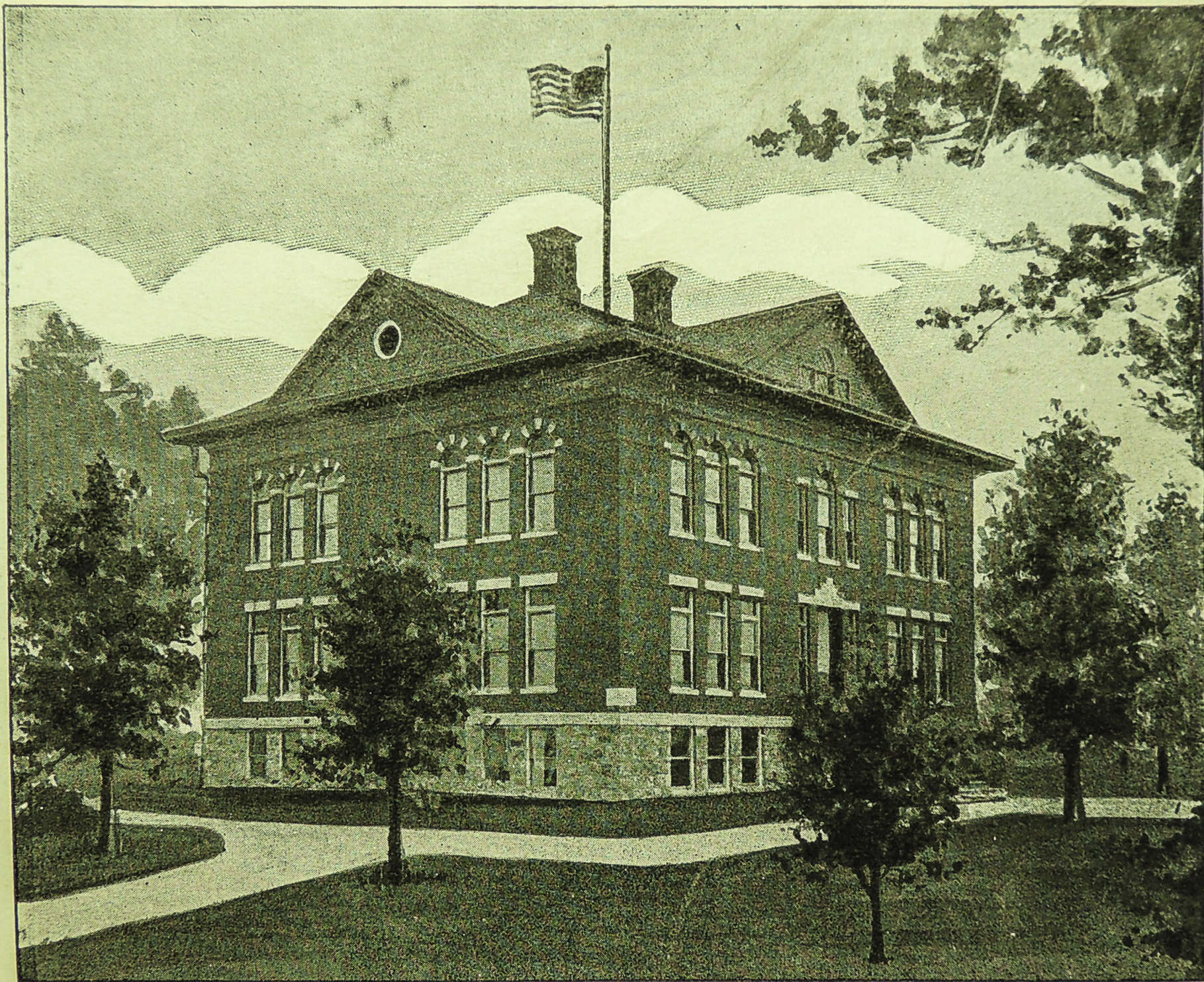
1900

State  
Manual  
Training  
School

Ellendale  
North Dakota

Ina E. Graham.





NORTH DAKOTA MANUAL TRAINING SCHOOL.



# The State Manual Training School

LOCATED ✻ AT ✻ ELLENDALE, ✻ NORTH ✻ DAKOTA

First  
Annual  
Catalog  
for  
1899-1900  
and  
Course  
of  
Study  
for  
1900-1901



ELLENDALE, N. D.:  
Goddard & Wright, Printers  
1900

*ERECTED BY THE STATE IN 1899*



## General Information

The industrial school and school for manual training at Ellendale was established by the Constitutional Convention and endowed with 40,000 acres of land. It was organized in accordance with Article VII of the public school laws, and opened its doors for the admission of students on September 4, 1899. Its object, as expressed in the law, is "to give instruction in a comprehensive way in wood and iron work and the various other branches of manual training, cooking, sewing, modeling, art work and the various other branches of domestic economy as a co-ordinate branch of education, together with mathematics, drawing, and other necessary studies."

These pages make brief record of the first year's work and exhibit something of the handsome building and equipment. Tuition is free in all departments. Graduates from the common school course are admitted without examination. All further information concerning boarding, text-books, course of study, etc. will be cheerfully given.

Address,

*MANUAL TRAINING SCHOOL,*

*Ellendale, North Dakota.*



## Board of Trustees

T. W. MILLHAM, <i>Chairman</i> .....	<i>Ellendale</i>
T. H. FAUS, <i>Secretary</i> .....	<i>Ludden</i>
C. J. STURGEON .....	<i>Edgeley</i>
W. H. BOOMER .....	<i>Cayuga</i>
B. R. CRABTREE, <i>Accounting Officer</i> .....	<i>Ellendale</i>
CITIZENS STATE BANK, <i>Treasurer</i> .....	<i>Ellendale</i>



# Calendar

1900-1901

FIRST SEMESTER—SEPT. 4—DEC. 21

Examination and Registration . . . . . Tuesday, September 4  
Regular Work Begins . . . . . Wednesday, September 5  
Thanksgiving Holiday . . . . . Thursday, November 29  
First Semester Closes . . . . . Friday, December 21

SECOND SEMESTER—JAN. 2—MAY 16.

Examination and Registration . . . . . Wednesday, January 2  
Regular Work Begins . . . . . Thursday, January 3  
Lincoln's Birthday . . . . . Tuesday, February 12  
Washington's Birthday . . . . . Friday, February 22  
Second Annual Exhibition . . . . . Friday, March 8  
Arbor Day . . . . . As Appointed by Governor  
Second Semester Closes . . . . . Thursday, May 16

COMMENCEMENT WEEK



## Faculty of Instructors

A. E. DUNPHY, *Director,*  
*Mechanical Drawing and Manual Training.*

LILLIAN E. TINGLE,  
*Domestic Art and Science, German and English.*

ELLEN S. ANDERSON,  
*Fine Art, History and Literature.*

W. M. LAWYER,  
*Mathematics and Science.*

ALICE M. WATTS,  
*Grammar and Bookkeeping.*

---

W. E. HICKS, *President,*  
*Organized the School, May to November, 1899.*



## COURSE OF STUDY

FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
Arithmetic	Algebra	Algebra $\frac{1}{2}$ , Geom. $\frac{1}{2}$	Geometry
United States History	General History	Civics $\frac{2}{3}$ , Phys'gy $\frac{1}{3}$	Physics
English Grammar	Eng Gram $\frac{1}{2}$ , Rhet $\frac{1}{2}$	German or Latin	German or Latin
Literature	Literature	Literature	Literature
Fine Arts	Fine Arts	Fine Arts	Fine Arts
Domestic Economy or Manual Training	Domestic Economy or Manual Training	Domestic Economy or Manual Training	Domestic Economy or Manual Training



Claude Aelter



Adah Schuchman.

Jennie Aelter

Harold Ringstahl?

Joe Webb?

MECHANICAL DRAWING



## Civics

A. E. DUNPHY

### GOVERNMENT WITHIN THE STATE

*The Town.*—Why and how organized. Primitive modes of administering justice. Proceedings in justice court. The incorporated village. The city.

*The County.*—Establishing justice in the county. Historical.

*The State.*—Why and how created. State constitutions. Departments of government. The legislative department. The executive department. Other state officers. The judicial department. Retrospect.

### THE NATION

The causes of the Revolution. The Articles of Confederation. The origin of the constitution. Study of the constitution.

## United States History

ELLEN S. ANDERSON

1. The Aborigines.
2. Discovery and exploration.
3. Colonial history.
4. Nationality.
  1. Revolutionary.
  2. Organization and development.
  3. Civil War.
  4. Development and reconstruction.

## Arithmetic

ELLEN S. ANDERSON

Arithmetic being a subject much used in the practical affairs of life, we aim to make the course of study, as well as the method of teaching, especially practical. Much attention is given to business forms and methods. After a review of Fractions and Compound Numbers, a thorough study is made of Percentage, Equation of Payments, Banking, Discount, Partnership, Involution, Evolution and Mensuration.



## Algebra

ELLEN S. ANDERSON

The work of this subject is carried on with especial reference to its educational value, although care is taken to make it a thorough preparation for future mathematical work. Much attention is given to the development of principles—the pupil being led to discover each mathematical truth from certain conditions—thus ensuring the independence of the pupil in making his applications. The work in the first year includes everything to Quadratics. The subject is reviewed and completed the second year.



## Literature

ELLEN S. ANDERSON

An endeavor is made to lead the pupils to an appreciation of good literature, and to develop in them an enthusiasm for literary study and for original and independent research. The authors are studied through what they have written—the pupil being required to interpret for himself as far as possible; although he is encouraged to do as much collateral reading as he can, to acquire breadth of view and a literary atmosphere. The history of the times and the contemporaries of the author are studied.

The following has been done by our pupils this year:

*First Class*—Hiawatha. The Courtship of Miles Standish. Evangeline. Enoch Arden. The Idyls of the King. The Princess, and Locksley Hall.

*Second Class*—Lady of the Lake, and short selections from Scott. Merchant of Venice, Hamlet and Macbeth. Special work on the history of the drama including its origin to the times of Shakespeare. The works and characteristics of Ben Jonson, Edmund Spenser, and other contemporaries of Shakespeare studied.



## History

ELLEN S. ANDERSON

We endeavor to make the pupil grasp the subject as a whole—the growth of institutions, the cause and effect and the comparison of events, and man influenced by his environment.

### GENERAL HISTORY

1. Migration of races.
2. Egypt—its institutional influences, art, literature.
3. Babylon and Assyria institutions of literature, science and art.
4. Hebrew—institutions of religion, literature, customs.
5. Persian Empire—institution of power.
6. Hindoo—institution, language, art, literature.
7. Greece—institutions of religion, art, architecture, literature, customs, law, philosophy, war.
8. Rome—institutions, religion, conquest, law, social life, art and architecture, literature.
9. Mediæval period—
  1. Teutonic migration.
  2. Roman Germanic Empire.
  3. Crusades.
  4. Italian Republics.
  5. Renaissance.
10. Reformation.
11. Dutch Republic.
12. French Revolution.
13. Great events of the Nineteenth Century.

Much reading is required besides the text furnished by our text book. Special attention is given to the development of art—from the massive temples and pyramids of Egypt to the renowned St. Peters of the renaissance.



## German

LILLIAN E. TINGLE

In German a two years' course is provided, the aim of which is to enable the student to use the language with facility in ordinary reading, speaking and writing, and to lay a firm foundation for further study in Commercial or Technical German, or in German Literature. A thorough grounding in English is essential for success in this study.

### OUTLINE—TWO YEARS

#### FIRST YEAR

Pronunciation drill.

Memorizing and repetition of easy colloquial sentences, proverbs, etc.

Use of German characters.

Writing German from dictation.

Reading and translation, with grammatical and conversational exercises based on the reading lessons.

The inflection of articles, nouns, adjectives and pronouns.

The conjugation of weak and strong verbs.

The use of the more common prepositions.

Elementary rules of syntax and word-order.

Simpler uses of the modal auxiliaries.

#### SECOND YEAR

Reading and translation of narrative prose.

Conversational exercises.

Study of idioms.

Review and drill in grammar and syntax.

Prose composition.

Memorizing and translation of well known lyrics.

Study of some standard drama or comedy.





Jennie Alter

Fannie  
Deard

Ina ←

FINE ART DEPARTMENT



## English Grammar, Composition and Rhetoric

LILLIAN E. TINGLE

The object of this course is to develop in the student the greatest possible amount of practical power,—the ability to communicate his own thoughts in a simple, accurate, closely reasoned way, and to grasp thoroughly, and reproduce, the thoughts of others. An attempt is made to show him something of the dignity and beauty of the language by the study of its history; and to awake in him an appreciation of good style by the study of examples drawn from the works of the best writers and thinkers. Thus is shown the derivation of rhetorical rules, and their application is enforced by constant practice in writing and speaking.

### OUTLINE—TWO YEARS

#### FIRST YEAR

Structure of the English sentence.

Study of the parts of speech with special attention to the verb.

Exercises in parsing, punctuation and spelling.

Drill on common errors in speech and writing.

Analysis of sentences. Diagramming.

Letter-writing.

#### SECOND YEAR

Review of grammatical principles.

More difficult points in parsing and analysis.

Outline and composition writing.

History of the English language.

Word analysis.

Diction. Synonyms. Figures of speech.

Reproduction of thought. Abstracts. Paraphrases.

Essays.



## To Parents

A. E. DUNPHY

We earnestly ask your co-operation with us in the effort to elevate the work of your boys and girls to a high standard of quality. Two hours of each day are devoted to Fine Arts, Domestic Economy, or Manual Training, leaving for the academic work only four hours, the greater part of which is spent in recitations. It is obvious that most of the studying must be done at home. The average student requires at least three hours' outside solid study, and the proper time for this is when the mind is at its best. In view of this it is urgent that students refrain from attending evening parties, dances or entertainments of any kind except on Fridays and Saturdays. It is gratifying to be able to say that during the past year the majority of our students faithfully employed the time, but there were some whose poor work was directly due to the fact that they gave insufficient time to the preparation of lessons, or that they were so exhausted from frequent late hours that they were incapable of doing average work. It is therefore urged that where practicable parents see to it that school work be placed before everything else.



## The Glee Club

A. E. DUNPHY

The Male Chorus has met weekly during the year. At first the work proceeded at an indifferent rate, but as it progressed interest increased until at the close of the year the results were indeed gratifying. Sight reading, voice culture, drill on four-part songs left a good foundation for next year's work. This chorus has been a source of keen enjoyment both to students and teacher.



## Company A

A. E. DUNPHY

To the students at least, one of the most interesting features of this school is the military drill. Company A was organized early in the fall of '99. Membership was made optional, but every able-bodied boy availed himself of the opportunity offered. Officers were chosen by ballot, and after the organization, the company, by an unanimous vote of its members, was placed on a strict military basis, and the discipline, though self-inflicted, was for the largest part strictly carried out. Some of the boys were members of the local militia company, while some had seen service in the late war with Spain. These advantages, together with the earnestness of all the members to learn, made the enterprise a success.

The value of this work becomes apparent to the boy as he sees round shoulders and curved backs straightening, not to mention bow legs. He strives to secure that dignity and manliness of bearing which belong to his soldier ideal, and which the discipline of strict attention and constant drill helps to make possible for him to possess. In this as perhaps in nothing else he learns the lesson of obedience. When the boy has tried numbers of times to execute a command, and has failed properly to do so, he begins to feel, and the conviction grows, that prompt obedience is not a sign of weakness, but rather on the part of him who renders it, a sign of self control and strength of will. We plan to carry this work farther in the future.



## Young Ladies' Chorus

A. E. DUNPHY

This class was organized quite late in the year, yet some progress was made in sight reading and voice culture. We hope to continue this work next year.



# Manual Training

A. E. DUNPHY

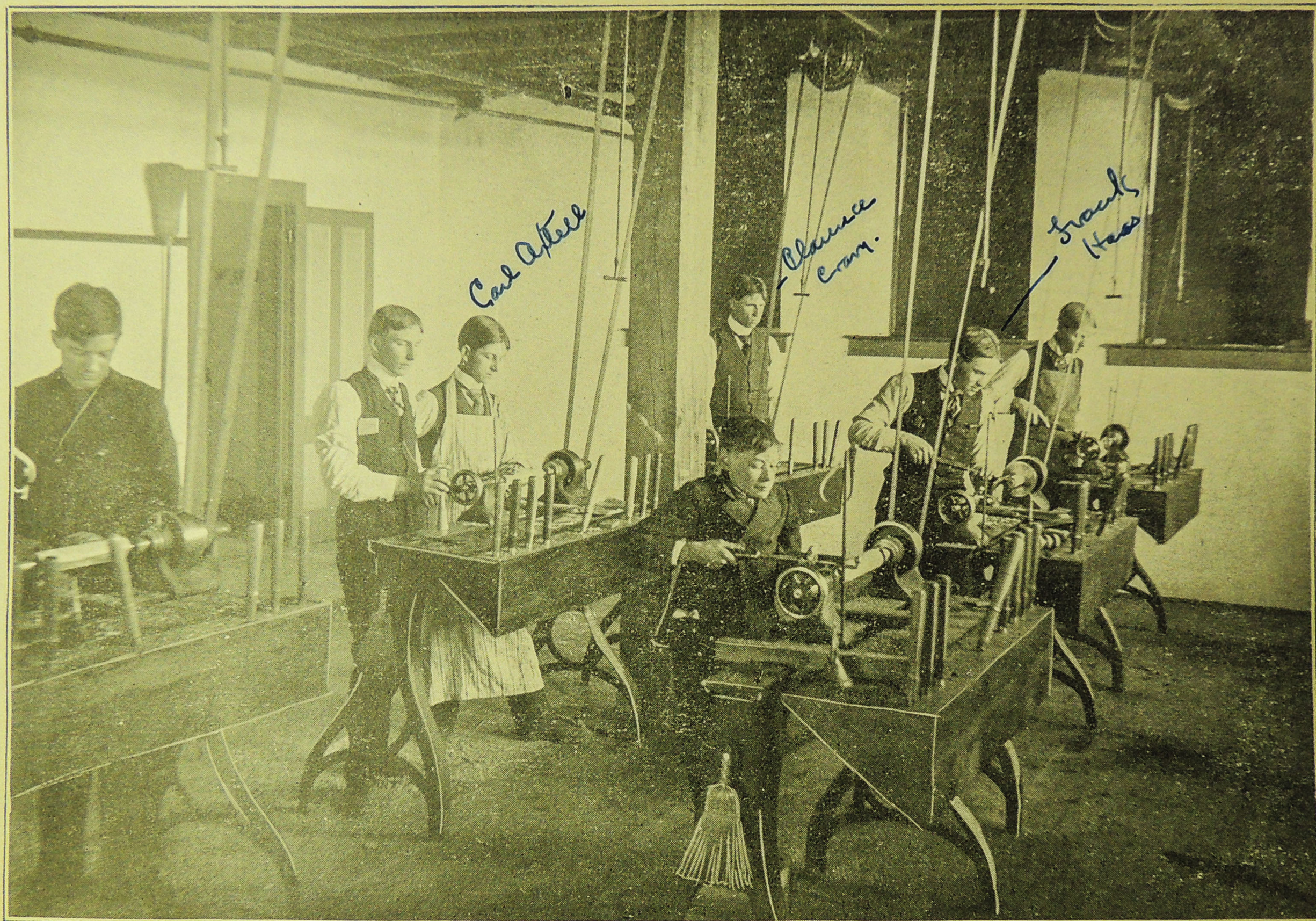
The course in Manual Training includes the following: Mechanical drawing (throughout the course) joinery, turning, vise-work (filing and chipping), pattern making, molding, casting, forging and machine tool practice. In public schools in other states such a course requires six or seven years, as it is customary to devote only three hours per week to shop work and two hours to drawing, whereas in this school five hours per week are employed in shop work and four in mechanical drawing. This arrangement enables the student to complete the regular course in Manual Training in three years.

Graduates of rural schools complete both the Academic and Manual Training courses in three years. High school graduates, having already done the major part of the academic work, will in consequence have more time for work in the special departments, and may graduate in two years. A large proportion of our students, however, enter before graduating from any school, and to meet the wants of this class a year's preparatory academic work is prefixed, making the full course for them four years. There is an advantage in this arrangement, in that he who attends during all the four years, having completed the regular Manual Training in three, will have a whole year's time for special work along any line which he may elect.

For example, a young man, having covered the general course in mechanics, may wish to learn more of a particular subject, as history, grammar, mathematics, drawing, forging, etc., or he may desire to learn something of Fine Art. During the last year he may devote the time previously occupied in Manual Training to any subject he may choose.

In passing it seems fitting to call attention to at least one of the advantages which this school affords its patrons.





WOOD TURNING LATHES



## NORTH DAKOTA MANUAL TRAINING SCHOOL

It has been said, and truly, that our school system is a series of steps in preparation for the college or university, and that those who are unable to secure the higher training are benefitted comparatively little by what they receive in the lower schools, since the common, and even high school courses contain so little that can be put to any immediate practical use. In this school the student receives not only that training which fits him for college, but also an actual and practical knowledge that will be of service at any time he may be obliged to leave school.



### MANUAL TRAINING

#### MECHANICAL DRAWING

FOUR HOURS PER WEEK

FIRST YEAR	SECOND YEAR	THIRD YEAR
Care of Instruments Practice Exercises Plain Lettering Simple Geometric Problems Working Drawings Blue Printing	Orthographic Projection Development of Surfaces Descriptive Geometry Architectural Drawing	Architectural ( <i>Original Design</i> ) Machine Drawing Machine Design

#### SHOP WORK

FIVE HOURS PER WEEK

FIRST YEAR	SECOND YEAR	THIRD YEAR
Joinery Wood Turning Vise Work in Metal	Pattern Making Molding Casting Forging	Forging ( <i>Machine Tool Making</i> ) Machine Tool Practice



## Fine Art Department

ELLEN S. ANDERSON

Our first aim in art education is the enrichment of the life of the pupil by the association with beauty in nature and with objects of art. These being the conditions for the development of the esthetic nature, good taste and a love for the beautiful is the result of the experience; for the essential elements of beauty being order, unity and harmony are apperceived by the mind and become a part of the consciousness—a part of the feeling—the pupil then has what Dr. Harris calls “the piety of the senses.”

He then is led to express his thoughts and ideals by pencil or brush, expression being a large part of the education of the pupil. As in language, we have the pupils express correctly, forcibly and elegantly as far as possible; but the motive of expression is from within and not from without—that is, we lead the pupils to feel the beauty and thus create an interest, then we expect to find the expression of interest and love in the results.

The teacher's work is sometimes in the direction of encouraging the pupil. Our belief is that the love of beauty, and the desire to express it, is innate in every child. The desire may not be strong, it may not have received the care and culture it needed, and the divine impulse which seems to be a part of every soul has faded and is almost lost in the darkness. To develop this power we try to throw around the pupils sympathy and encouragement. When these powers begin to develop, the teacher feels that she is giving back to the pupils their heritage—the desire to feel, appreciate, and express beauty. In this kind of expression the pupils are given an opportunity to work out sketches from objects, flowers, casts and plants, as well as from the pose. Careful attention is given to good form, values of light and shade, and artistic rendering, with consideration of beauty of position, and good composition.

The medium which is best suited to the subject is used;



for instance, sketches from the pose are made in pen and ink, brush and ink or pencil, and flower studies may be made in color, brush and ink, etc. Charcoal may be used in making studies from casts, flowers, or from the pose. We not only appeal to the esthetic feeling, but also to the creative activity. In modern education there is a growing demand for the development of the imaginative powers.

Our students are given excellent opportunity for this development in designing, and in pictorial and decorative work in composition—special attention being given to arrangement and space relations, as well as to schemes of color. Our classes this year have done a considerable of decorative work appropriate for the season of the year; for instance, at Christmas time they made pretty calendars, picture frames, Christmas cards, etc. Many of the pupils made all the gifts that they gave to their friends at the holiday season. Interesting suggestions for Easter and for Valentine day were also made. Two exhibits of the pupils work were given during the year in this department, including work in charcoal, water color, pen and ink, brush and ink, and pencil.

Special attention is given to charcoal work from the plaster cast. We have a collection of good models for our work including casts of historic ornament, flowers, fruit, and heads as follows: Egyptian Lily, Acanthus Leaf, Greek Ornament, Renaissance Ornament, Tulip, Hollyhock, Sprig of Apples, Sprig of Crab-apples, Sprig of Pears, Head of St. John, Head of Child, Agrippa, Cupid, Venus Acropolis, Psyche, Alexander, Diana, Niobe, Psyche of Naples, Venus Milo, and Apollo.

At the close of the year, our art classes organized an art club, and each member of the club made a sketch book in which to do out-door scenes during the summer. When the pupils return in September, the president of the club will collect the sketches and criticise the work.

The course of study extends through three years. The students work one hour each day. Promotions are made on the quality of work.



## COURSE OF STUDY

### FIRST YEAR

*Object Drawing, Single or Grouped.* Simple outline, pen or pencil. Light and shade, pencil.

*Flower Drawing.* Outline, pen or pencil. Light and shade, pencil.

*Drawing From Pose.* Outline, pencil, pen and ink, brush and ink. Light and shade, pencil.

*Watercolor.* Single flowers. Arrangements of flowers. Arrangements of flowers, still and life.

*Composition and Designing.* Pleasing arrangements of flowers, grasses, etc., adapted to the space in consideration. Principles of space relations with the study of principality and subordination. Principles of space relations applied to room decoration and to buildings.

### SECOND YEAR

All of the work of the first year is carried further; more attention is given to decorative designs and their application to book covers, leaded-glass designs, etc.

*Drawing from Cast, in Charcoal.* Flowers, fruit, historic ornament.

*Still Life.* Groups of objects, charcoal. Groups of objects, water color or oil. Objects and flowers, charcoal.

*Historic Art.* Painters, description of masterpieces. Sculptors, descriptions of masterpieces.

### THIRD YEAR

The work of the first two years carried further both in thought and execution.

*Historic Art Extended and Modern Artists Studied.* Drawing and painting out-door scenes. Clay modeling.

*Drawing From Cast, in Charcoal.* Historic ornament. Heads.



*Isa Graham*

*Hulcari girl*

*Anna Fair*

*Luella*



FREEHAND DRAWING



## Domestic Art Department

LILLIAN E. TINGLE

"The prosperity of a nation depends upon the health and morals of its citizens; and the health and morals of a people depend mainly upon the food they eat, and the homes they live in."—*Ellen H. Richards*.

It is a popular and widespread error that the knowledge necessary for the management of a home comes by nature; but a moment's thought, and the teachings of every day experience show that this is not the case. Everyone has observed striking differences in comfort, health and prosperity in households where the conditions of income and natural surroundings are practically identical.

Success in domestic work may be obtained in one of two ways: Either by repeated trial and failure, helped or hindered by tradition; or by instruction in correct principles. It is plain that the first method involves the greatest expenditure of strength, nerves, money, and time, with the least possible benefit. Moreover, this expenditure is incurred not merely by the head of the house, but also, in varying degrees, by those under her care. The mistakes and blunders of the bride, or young mother, have become proverbial, and have unfortunately been made the subject for many attempted jests. Such mistakes are inevitable, if the trial and failure method is adopted; but many of them could be avoided by the possession of a correct general knowledge of fundamentals. Not that this can ever take the place of experience, but it wonderfully simplifies matters and adds interest to the most common-place operations.

There is an awakening interest, on the part of the public, in the group of subjects known as Domestic Science—a somewhat vague term which has been defined as the application of scientific principles and methods of work to the problems of home life.

This interest is due partly to the study of social questions, and to the realization that many evils of modern



society are due to ignorance of the proper conduct of the home; and, partly to the practical and ever increasing difficulties that confront the housewife who wishes to hire domestic help.

Thus the study of Domestic Science has become an established fact in many schools in the United States, England and Germany, and experience has shown that the subject may be considered not only from the social or from the practical standpoint, but also as a form of manual training having a direct educational value.

The three years' course in Domestic Science has been planned to supply that training for the duties and responsibilities of home life which the ordinary academic education fails to give, and to lay a broad and solid foundation for the technical work involved in the direct preparation for a profession or a skilled occupation.

Much attention is devoted to the important subject of *Food*: its varieties, selection, preparation, digestion and uses. It is necessary also to consider proper dietary proportions and combinations and the modifications suitable in special circumstances, *e. g.*, during sickness, hard muscular work, sedentary employments, cold weather, etc. Through ignorance we buy the wrong sort of food, or spoil good food by bad cooking. Practical work in the school kitchen is an important feature of the course. The kitchen is fitted up with a view to individual instruction. Besides having the use of the range, oil stoves, and general kitchen apparatus, each student is provided with a separate working bench and a set of utensils, for the care of which she is responsible.

Typical dishes are chosen to illustrate the various processes of cooking and the principles underlying them. In the beginning, each student makes a complete dish, using small quantities of material in proportions corresponding to the regular recipe. The product is always tasted by the maker, who thus learns to appreciate both excellencies and defects, and to avoid mistakes in the future. Later, when some experience has been gained, more elaborate dishes





DOMESTIC ART DEPARTMENT



and full quantities are used. These dishes may be purchased (if desired) by the students, for the bare cost of the materials.

Practice in planning and serving meals, and in waiting at table, is also given. In the last year, students may gain experience in the purchase of supplies and the keeping of household accounts. Demonstrations are required from the pupils, who thus gain self-confidence and are led to read more widely in books of reference. The distinction between an educated cook and an uneducated one of the same skill, is that the former can explain to herself or to some one else just how and why she takes each step; while the latter can do the thing excellently perhaps, but cannot tell how or why she does it, and therefore cannot so readily adapt herself to new conditions.

Physiology and Personal and Domestic Hygiene also receive attention, the instruction being made as practical and experimental as possible with the object of stimulating the reasoning power of the student and of training her in accuracy.

Students also prepare and read papers on such topics as: *Errors in Diet; The Effect of Stimulants; The Use and Abuse of Clothing; Work, Exercise and Rest; Bacteria, as Friends and Foes.*

Matters relating to the site, aspect, drainage, ventilation, furnishing, and cleaning of the home are also studied, and the necessity for method and organization in household work is impressed upon the student.

In the department of Domestic Art, the course begins with eye and hand training by means of carefully graded needle-work exercises in various materials. The pupil is led to develop valuable habits of neatness and thoroughness, and, at the same time, to respect good material and good workmanship. This is followed up by the cutting and making of simple garments, practice being given in both hand and machine sewing. During the last year the principles of Dressmaking are studied and a simple system of drafting and cutting is taught. Students are expected



to provide the material for all garments, but that used in the exercises and practice-work is furnished by the school. Graduates in this department are required to plan and make their own graduating dresses. Some time is devoted to the consideration of form and color in dress, and of textiles and their production.

In all the work, whether practical or theoretical, an endeavor is made to lead the pupils to see the dignity and importance of this wide subject, and to realize the truth of Ruskin's words: "It is only by labor that thought can be made healthy, and only by thought that labor can be made happy."

## DOMESTIC ARTS AND SCIENCE OUTLINE

### FIRST YEAR

#### DOMESTIC SCIENCE

*Practical Work.* (Two lessons per week.) Care of stoves and ranges. Fuels. Dish-washing. Classification of foods. Measuring and mixing. Typical methods of cooking. Boiling and steaming. Cereals. Plain vegetables. Stock and plain soups. Meats. Broiling and stewing. Frying. Doughs. Baking powders. Plain pastry. Simple puddings and sauces. Cake. Gelatine. Simple frozen dishes. Warming over. Oysters. Yeast and bread making. Table service. Care and cleaning of kitchen. Planning and serving simple meals.

*Physiology and Hygiene.* General structure of the body. The digestive system. Errors in diet. The respiratory system. Ventilation. Dust and its dangers.

#### DOMESTIC ART

*Hand Sewing.* (Two lessons per week.) Study of stitches and materials. Basting and running. Hems. Seams. Gathering. Bands. Buttonholes. Darning. Patching. Flannel and stockenette work. Hemstitching. Linen marking. Plackets. Tucks. Ruffles. Fancy stitching. Eyelet holes and loops.



society are due to ignorance of the proper conduct of the home; and, partly to the practical and ever increasing difficulties that confront the housewife who wishes to hire domestic help.

Thus the study of Domestic Science has become an established fact in many schools in the United States, England and Germany, and experience has shown that the subject may be considered not only from the social or from the practical standpoint, but also as a form of manual training having a direct educational value.

The three years' course in Domestic Science has been planned to supply that training for the duties and responsibilities of home life which the ordinary academic education fails to give, and to lay a broad and solid foundation for the technical work involved in the direct preparation for a profession or a skilled occupation.

Much attention is devoted to the important subject of *Food*: its varieties, selection, preparation, digestion and uses. It is necessary also to consider proper dietary proportions and combinations and the modifications suitable in special circumstances, *e. g.*, during sickness, hard muscular work, sedentary employments, cold weather, etc. Through ignorance we buy the wrong sort of food, or spoil good food by bad cooking. Practical work in the school kitchen is an important feature of the course. The kitchen is fitted up with a view to individual instruction. Besides having the use of the range, oil stoves, and general kitchen apparatus, each student is provided with a separate working bench and a set of utensils, for the care of which she is responsible.

Typical dishes are chosen to illustrate the various processes of cooking and the principles underlying them. In the beginning, each student makes a complete dish, using small quantities of material in proportions corresponding to the regular recipe. The product is always tasted by the maker, who thus learns to appreciate both excellencies and defects, and to avoid mistakes in the future. Later, when some experience has been gained, more elaborate dishes



society are due to ignorance of the proper conduct of the home; and, partly to the practical and ever increasing difficulties that confront the housewife who wishes to hire domestic help.

Thus the study of Domestic Science has become an established fact in many schools in the United States, England and Germany, and experience has shown that the subject may be considered not only from the social or from the practical standpoint, but also as a form of manual training having a direct educational value.

The three years' course in Domestic Science has been planned to supply that training for the duties and responsibilities of home life which the ordinary academic education fails to give, and to lay a broad and solid foundation for the technical work involved in the direct preparation for a profession or a skilled occupation.

Much attention is devoted to the important subject of *Food*: its varieties, selection, preparation, digestion and uses. It is necessary also to consider proper dietary proportions and combinations and the modifications suitable in special circumstances, *e. g.*, during sickness, hard muscular work, sedentary employments, cold weather, etc. Through ignorance we buy the wrong sort of food, or spoil good food by bad cooking. Practical work in the school kitchen is an important feature of the course. The kitchen is fitted up with a view to individual instruction. Besides having the use of the range, oil stoves, and general kitchen apparatus, each student is provided with a separate working bench and a set of utensils, for the care of which she is responsible.

Typical dishes are chosen to illustrate the various processes of cooking and the principles underlying them. In the beginning, each student makes a complete dish, using small quantities of material in proportions corresponding to the regular recipe. The product is always tasted by the maker, who thus learns to appreciate both excellencies and defects, and to avoid mistakes in the future. Later, when some experience has been gained, more elaborate dishes





DOMESTIC ART DEPARTMENT



and full quantities are used. These dishes may be purchased (if desired) by the students, for the bare cost of the materials.

Practice in planning and serving meals, and in waiting at table, is also given. In the last year, students may gain experience in the purchase of supplies and the keeping of household accounts. Demonstrations are required from the pupils, who thus gain self-confidence and are led to read more widely in books of reference. The distinction between an educated cook and an uneducated one of the same skill, is that the former can explain to herself or to some one else just how and why she takes each step; while the latter can do the thing excellently perhaps, but cannot tell how or why she does it, and therefore cannot so readily adapt herself to new conditions.

Physiology and Personal and Domestic Hygiene also receive attention, the instruction being made as practical and experimental as possible with the object of stimulating the reasoning power of the student and of training her in accuracy.

Students also prepare and read papers on such topics as: *Errors in Diet; The Effect of Stimulants; The Use and Abuse of Clothing; Work, Exercise and Rest; Bacteria, as Friends and Foes.*

Matters relating to the site, aspect, drainage, ventilation, furnishing, and cleaning of the home are also studied, and the necessity for method and organization in household work is impressed upon the student.

In the department of Domestic Art, the course begins with eye and hand training by means of carefully graded needle-work exercises in various materials. The pupil is led to develop valuable habits of neatness and thoroughness, and, at the same time, to respect good material and good workmanship. This is followed up by the cutting and making of simple garments, practice being given in both hand and machine sewing. During the last year the principles of Dressmaking are studied and a simple system of drafting and cutting is taught. Students are expected



to provide the material for all garments, but that used in the exercises and practice-work is furnished by the school. Graduates in this department are required to plan and make their own graduating dresses. Some time is devoted to the consideration of form and color in dress, and of textiles and their production.

In all the work, whether practical or theoretical, an endeavor is made to lead the pupils to see the dignity and importance of this wide subject, and to realize the truth of Ruskin's words: "It is only by labor that thought can be made healthy, and only by thought that labor can be made happy."

## DOMESTIC ARTS AND SCIENCE OUTLINE

### FIRST YEAR DOMESTIC SCIENCE

*Practical Work.* (Two lessons per week.) Care of stoves and ranges. Fuels. Dish-washing. Classification of foods. Measuring and mixing. Typical methods of cooking. Boiling and steaming. Cereals. Plain vegetables. Stock and plain soups. Meats. Broiling and stewing. Frying. Doughs. Baking powders. Plain pastry. Simple puddings and sauces. Cake. Gelatine. Simple frozen dishes. Warming over. Oysters. Yeast and bread making. Table service. Care and cleaning of kitchen. Planning and serving simple meals.

*Physiology and Hygiene.* General structure of the body. The digestive system. Errors in diet. The respiratory system. Ventilation. Dust and its dangers.

### DOMESTIC ART

*Hand Sewing.* (Two lessons per week.) Study of stitches and materials. Basting and running. Hems. Seams. Gathering. Bands. Buttonholes. Darning. Patching. Flannel and stockenette work. Hemstitching. Linen marking. Plackets. Tucks. Ruffles. Fancy stitching. Eyelet holes and loops.



Lou Railroad  
1901

Minnie Sait  
1901



Lora  
Milham  
1901

DOMESTIC SCIENCE DEPARTMENT



## SECOND YEAR

### DOMESTIC SCIENCE

*Practical Work.* Invalid cookery. Bread making. Fancy bread and rolls. Fish. Salads. Soups. Dressed vegetables. Sauces. Planning and serving meals. Care and preservation of foods. Study of food materials. Demonstrations by pupils.

*Personal and Domestic Hygiene.* Review work in physiology. Emergencies. Disinfectants. The bedroom. Care of the sick. Healthful dress.

### DOMESTIC ART

*Machine and Hand Sewing.* Care and use of sewing machine. Drafting and cutting simple garments. Adapting patterns. Use of trimmings and fancy stitching. Making suit of underwear. Simple shirt waist or dressing sack. Review work. Written notes and models. Mending underwear.

## THIRD YEAR

### DOMESTIC SCIENCE

*Practical Work.* Nutritive value and composition of foods. Construction of dietary tables. Adulteration of food. Marketing. Fancy cookery. Savories. Entrees. Souffles. Garnishing and carving. Planning, purchasing, and serving a dinner or luncheon to invited guests.

*Home Sanitation and Economics.* Chemistry of cooking and cleaning. Removal of wastes. Water supply. Situation and surroundings of the house. Heating and lighting. Sanitary furnishing. Care of plumbing and fixtures. General care of the house. Method in domestic work. Household pests.

### DOMESTIC ART

*Dressmaking.* Measuring, drafting and cutting. Study of form and color in dress. Planning, purchasing, cutting and making a simple house or walking dress. Making separate skirt. Making striped or figured waist (with lining.) Trimmings and finishings. Exercises with practice materials. Remodelling and mending. Planning and making graduation dress.



# List of Students

## JUNIOR CLASS

Minnie Fait.....	Monango
Ina Randall.....	Ellendale
Adah Schraudenbach.....	Frederick, S. D.
Flora Millham.....	Ellendale
Jennie Alter .....	"
Katie King .....	"
Bertha Dickie.....	"
Aimee Meachen.....	"

## SOPHOMORE CLASS

Carl Axtell.....	Ellendale
Katie Austin.....	"
Urania Bonker.....	"
Mollie Crowley.....	"
Walter Fait.....	Monango
Lillian Hodges.....	Ellendale
Helma Hukari.....	Frederick, S. D.
Gustava Hukari .....	" "
Minnie Kronschnabel .....	" "
Frank Haas.....	Ellendale
Sadie Lord.....	Merricourt
Maud Letson. ....	Ellendale
Edgar McDonald .....	Monango
Will McPhearson.....	"
Beth Northrop.....	"
Josie Northrop.....	"
Winnifred Peek.....	"
George Reed.....	Ellendale
Margaret Scott.....	"
Myron Sine.....	"
Clifton Smith.....	"
Ella Supry .....	Merricourt
Lulu Webb.....	"
Arthur Webb.....	"



# NORTH DAKOTA MANUAL TRAINING SCHOOL

## FRESHMAN CLASS

Claude Alter.....	Ellendale
Tillie Albert.....	Silver Leaf
Hilda Anderson.....	Savo, S. D.
Bert Bryan.....	Ellendale
Bert Bowen.....	Glover
Lulu Brown.....	Westboro
Fannie Crary.....	Ellendale
Clarence Crary.....	"
John Crowley.....	"
Forest Dille.....	Monango
Earl Douglas.....	"
Arthur Brown.....	Ellendale
Myron Griffin.....	"
Grace Griffin.....	"
Sophia Goldberg.....	"
Hans P. Hanson.....	Edgeley
Linnie Hubbard.....	Ellendale
Otto Hanson.....	Frederick, S. D.
John Hamilton.....	Kilbernie
Charles Hubbard.....	Ellendale
James Jordan.....	Grand Rapids
Ella Kittridge.....	Ellendale
Thomas Kronschnabel.....	Frederick, S. D.
George Lane.....	Ellendale
Elinor Lane.....	"
Mary Lucke.....	Yorktown
Fred Lewis.....	Dickey
Mabel Letson.....	Ellendale
Iza Martin.....	Silver Leaf
Pearl Morey.....	Yorktown
Joseph Maruchek.....	Devils Lake
Pearl Martin.....	Silver Leaf
Percy Martin.....	Ellendale
Amelia Micklebost.....	Mandan
Lester Meek.....	Silver Leaf
Carl Meek.....	"
Joseph McEntee.....	Pierson



# NORTH DAKOTA MANUAL TRAINING SCHOOL

Oscar Pesonen.....	Guelph
Emma Pehl .....	Ellendale
Eva Ravenstein.....	"
Maynie Scott .....	"
Etta Salmons .....	Winship, S. D.
Vernon Steele.....	Edgeley
Lila Steele.....	"
Orlin Southam .....	Monango
Georgia Snyder.....	Merricourt
Leon Steele.....	Edgeley
Earnest Steele.....	"
Blanche Steele.....	"
Minnie Trimmer.....	Silver Leaf
Lizzie Trimmer.....	"
Herbert Thompson.....	Wright
Ida Thompson.....	"
Maud Vennom.....	Pierson
Maria Wedell.....	Ludden



## Enrollment

	Boys	Girls	Total
Junior Class.....	..	5	5
Sophomore Class.....	9	18	27
Freshmen Class.....	29	26	55
Special Students.....	24	49	73
Total.....	62	98	160





CARPENTER SHOP



## SPECIAL STUDENTS

Fine Arts and Domestic Science

Mabel Newton	Monango
Ava Randall	Ellendale
Minnie Robertson	"
Lora White	"
Ethelyn Meachen	"
Theresa King	"
Lily DeGraff	"
Edna Cross	"
Ethel Graham	Monango
Alice Flemington	Ellendale
Sarah McClure	"
Agnes Randall	Ludden
Maud Wilson	Monango
Edna Rudd	Ellendale
Edith Owen	"
Mary Flemington	"
Leta Merrifield	Monango
Florence Collins	Ellendale
Anna McNickle	"
Irene Rose	"
Nella Dickie	"
Marian Newton	Monango
Augusta Dickie	Ellendale
Blanche Irwin	"
Emma Martin	"
Mabel Irwin	"
Ethel Beggs	"
Verna Folsom	Ludden
Bertha Krause	Ellendale
Eva Martin	"
Mabel Kennedy	Ludden
Susie Rose	Ellendale
Josie Alekson	"
Idena Alekson	"
Edith Jones	"
Katie Haas	"



# NORTH DAKOTA MANUAL TRAINING SCHOOL

Bessie McCarty.....	Ellendale
Zelia Smart.....	"
Eva Leiby.....	"
Hannah Bjornstad .....	"
Edith Saunders.....	"
Florence Bergendahl.....	"
Martha Hatfield.....	"
Ava Mock.....	"
Mabel McComish.....	"
Harriet Lane.....	"
Eunice Owen.....	"
Agnes Merchant.....	"
Mamie Krause.....	"

## SPECIAL STUDENTS & MANUAL TRAINING

Harold Bergendahl.....	Ellendale
Oscar Beggs.....	"
Lewis Mallory.....	"
Titus Lane.....	"
Silas Mallory.....	"
Leslie Millham .....	"
Rene Smith.....	"
Seel Smith.....	"
Harold Meachen.....	"
Ralph Holte.....	"
Willie Mandigo.....	"
Louie White.....	"
Howard Thomas.....	"
Frank Reed.....	"
Loren Coleman.....	"
Clarence Higgins.....	"
Ira Fierce.....	"
Fred Applequist.....	"
Carl Anderson.....	"
Garfield Hodgins.....	"
Oscar Anderson.....	"
John Earley.....	Lorraine
Willie Hodgins.....	Ellendale
Allen Fierce.....	"







PROPERTY OF:

J. B. Graham

Ellendale, N.D.